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ABSTRACT

The Career Assimilation Program for Entering Russian Students (Project CAPERS) was an Elementary and Secondary Education Act Title VII project in its second year in 1993-94. The project operated at three schools in a community school district in Brooklyn (New York), and served 128 Russian-speaking students, 104 of whom were of limited English proficiency, in 6th, 7th, and 8th grades. Participants received instruction in English as a Second Language (ESL), native language arts (NLA), and the content area subjects of mathematics, science, and social studies. Career awareness instruction was infused into the curriculum. Although the project sought an active parental component, the language barrier and parental employment responsibilities made parents reluctant to come to the schools. The project met most other objectives, although the objective for mathematics could not be measured due to lack of data. It is recommended that the program provide Russian-language activities for parents at times when they could attend, and that it offer ESL instruction for parents. Seven tables present evaluation findings. Three appendixes list instructional materials and class schedules and present the Likert scales used in the evaluation. (SLD)

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ED 383 782

OER Report

Career Assimilation Program
for Entering Russian Students
(Project CAPERS)
Transitional Bilingual Education Grant T003M20009
FINAL EVALUATION REPORT
1993-94

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Career Assimilation Program
for Entering Russian Students
(Project CAPERS)
Transitional Bilingual Education Grant T003M20009
FINAL EVALUATION REPORT
1993-94

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EXECUTIVE SUMMARY

Career Assimilation Program for Entering Russian Students (Project CAPERS) was an Elementary and Secondary Education Act. (E.S.E.A.) Title VII project in its second year in 1993-94. The project functioned at I.S. 223, I.S. 227, and I.S. 259 in community school district (C.S.D.) 20 in Brooklyn. Project CAPERS served Russian-speaking students identified as being of limited English proficiency (LEP) in sixth, seventh, and eighth grades. Participating students received instruction in English as a second language (E.S.L.), native language arts (N.L.A.), and the content area subjects of mathematics, science, and social studies. Career awareness instruction was infused into the curriculum.

Teachers of participating students and educational assistants had the opportunity to attend both preservice and inservice workshops.

Project CAPERS sought to establish an active parental component, which included workshops and activities, but found that the language barrier and employment responsibilities made the parents reluctant to come to the schools.

The project met its objectives for E.S.L., N.L.A., the content area subjects of science and social studies, career awareness, attitude toward school, high school placement, mainstreaming, and staff development. Project CAPERS did not meet its objective for parental involvement. The Office of Educational Research could not measure the objective for the content area subject of mathematics because the project failed to provide the required data. The project director indicated that plans have been developed to strengthen the parental involvement program.

The conclusions, based on the findings of this evaluation, lead to the following recommendations to the project:

- Provide additional activities for parents where information is presented in the Russian language. Arrange to hold activities at times other than during the day so that work responsibilities will not preclude attendance.

- Provide E.S.L. instruction for parents.

ACKNOWLEDGMENTS

This report has been prepared by the Bilingual, Multicultural, and Early Childhood Evaluation Unit of the Office of Educational Research. Thanks are due to Ms. Lisa Wolf for collecting the data.

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I. INTRODUCTION

In 1993-94, Career Assimilation Program for Entering Russian Students (Project CAPERS) was in its second year of funding as an Elementary and Secondary Education Act (E.S.E.A.) Title VII project.

PROJECT CONTEXT

The project operated at I.S. 223, I.S. 227, and I.S. 259 in community school district (C.S.D.) 20 in Brooklyn. The population in this district was ethnically diverse: 48.7 percent were European-American, 26.8 percent were Latino, 14.5 percent were Asian-American, and 10.0 percent were African-American. A 1991-92 survey identified 53 different languages as the dominant language in the homes. There were many recent immigrants. Most residents had low incomes, and 72 percent of the students in the district were eligible for free lunch.

All demographic data from the school was from 1992-93, the last year for which these data were available.

At I.S 223, the student population reflected the diversity of the surrounding community. Of the total enrollment of 892 students, 42.5 percent were Latino, 24.7 percent were European-American, 16.8 percent were African-American, 15.8 percent were Asian-American, and 0.2 percent were Native American. Of these, 86 percent were from low-income families, as evidenced by their eligibility to participate in the free-lunch program, and 27 percent were of limited English proficiency (LEP). Twenty-eight percent of the students were newly-arrived immigrants. The building in which I.S. 223 is housed was constructed in 1930.

Of the total enrollment of 1,566 students at I.S. 227, 43.7 percent were European-American, 27.1 percent were Latino, 19.3 percent were Asian-American, 9.8 percent were African-American, and 0.1 percent were Native American. Of these, 63 percent were eligible for free lunch, and 19 percent were LEP. Eighteen percent of the students were newly-arrived immigrants. Like I.S. 223, I.S. 227 was constructed in 1930.

Of the total enrollment of 1,510 students at I.S. 259, 56.5 percent were European-American, 22.8 percent were Latin, 16.5 percent were Asian-American, 4.1 percent were African-American, and 0.1 percent were Native American. Of these, 55 percent were from low income families and 15 percent were LEP. Nineteen percent of the students were new immigrants. I.S 259 is housed in a building constructed in 1939. The interior of the school was sparsely decorated.

STUDENT CHARACTERISTICS

Project CAPERS served 128 Russian-speaking students (104 of whom were LEP) in the sixth, seventh, and eighth grades. (See Table 1.) Scores at or below the 40th percentile on the Language Assessment Battery (LAB) determined LEP status. Other criteria included recommendation by the social worker, guidance counselor, or teacher, and parent approval and/or recommendation.

In 1993-94, the project served a total of 128 students. All students but one had Russian as their native language. (See Table 2.) The majority of participants (98 percent) were born in countries formerly part of the Soviet Union. (See Table 3.) Most (98 percent of the participants came from low-income families as evidenced by their eligibility for the free-lunch program.

TABLE 1

Number of Students in Project CAPERS, by Site and Grade

Site	Grade			Total
	6	7	8	
I.S. 223		10	23	33
I.S. 227	21	18	12	51
I.S. 259	12	22	10	44
Total	33	50	45	128

TABLE 2

Project Students' Native Languages

Language	Number of Students
Russian	127
Ukrainian	1
Total	128

TABLE 3

Students' Countries of Origin

Country	Number of Students
Ukraine	46
Russia	34
Belarus	13
Arzerbaijan	12
Uzbekistan	12
Moldovia	4
Poland	2
Latvia	2
Lithuania	2
Kazakakhstan	1
Total	128

Needs Assessment

Before instituting the program, Project CAPERS conducted an exhaustive needs assessment of the targeted students and their families as well as of the educational staff who were to serve them. The data obtained from these studies indicated five primary needs: (1) to provide instructional services to underserved Russian LEP students; (2) to identify children who have achieved English-language proficiency; (3) to transfer students who have achieved English proficiency to the mainstream; (4) to provide staff development activities that will enable staff to best serve the target population; and (5) to increase communication between the school, parents, students, and the community, as well as to promote their basic skills.

PROJECT OBJECTIVES

Student Objectives

By the conclusion of the project period, September 1993 through June 1994,

- it is expected that 75 percent of the target students in grades six to eight at the three target schools will demonstrate increased skills in listening, speaking, reading, and writing English, as measured by a comparative analysis of performance on the Language Assessment Battery (LAB), for which the level of success will be an average gain of 4 normal curve equivalents (N.C.E.s) or a statistically significant gain in mean N.C.E.s at the .05 level of probability.

- it is expected that 25 percent of the target population of participating LEP students in grades six to eight at the three target schools will achieve proficiency in the English language, as measured by a comparative analysis of pretest and posttest performance on the LAB, for which the level of success will be that ten percent of the students achieve a percentile rank greater than 40 on the total LAB score.

- it is expected that 75 percent of the target students in grades six to eight at the three target schools will demonstrate increased reading skills in Russian, as measured by a comparative analysis of pretest and posttest performance on the teacher's ratings obtained from a locally developed *Russian Reading Rating Scale* for which the level of success will be a statistically significant gain at the .05 level of probability.

- it is expected that 75 percent of the target students in grades six to eight at the three target schools will demonstrate increased skills in mathematics in English, as measured by a comparative analysis of pretest and posttest performance on the California Achievement Test, for which the level of success will be an average gain of 4 N.C.E.s, or a statistically significant gain in mean N.C.E.s at the .05 level of probability.

- it is expected that 75 percent of the target students in grades six to eight at the three target schools will demonstrate achievement at the expected grade level in science, social studies, and other content areas, as measured by an analysis of final grades, for which the level of success will be that 75 percent of the students achieve final report card grades of Good, Very Good, or Excellent in each content area.

- it is expected that 75 percent of the target population of students who receive instruction in the career awareness modules (computer literacy in grades six and eight, Russian language arts in grade six,, and employability in grades seven and eight) will demonstrate increased career awareness as a result of career awareness instruction infused into the bilingual curriculum, as measured by a comparative analysis of pretest and posttest scores on locally developed module-specific criterion-referenced tests of career awareness, for which the level of success will be statistically significant change at the .05 level of probability.

- it is expected that 75 percent of the target students in grades six to eight at the target junior high school will demonstrate suitable attitudes toward school, as measured by descriptive analyses of posttest scores on each subtest of the *School Attitude Measure*, for which the level of success will be scoring in the "adequate" to "exceptional" normative ranges.

- it is expected that participating LEP students who achieve proficiency in English will be transferred to appropriate educational programs not funded by the Act within the regular education program and targeted for appropriate supplemental follow-up support services.

- it is expected that 50 eighth grade students participating in Project CAPERS will demonstrate that they have made informed and appropriate high school selections, as documented by evidence of counseling activities (logs, high school visitations, etc.) and the students' self-assessment of their satisfaction with their choice of high school, as measured by a locally developed self-assessment rating scale.

Staff Development

- By June 1994, it is expected that 85 percent of the teaching staff will increase their mastery of bilingual methodology/teaching strategies and of career education principles and strategies as a result of their participation in monthly training workshops and on-site training activities, as evidenced by attendance sheets, agendas, training materials, and workshop evaluation/self-assessment rating forms.

Parent Involvement

- By June 1994, it is expected that 75 percent of the parents of participating students will have acquired basic understanding and knowledge of the principles, objectives, and activities of their children's bilingual education program and will demonstrate increased ability to participate in the education of their children, as a result of their participation in parent activities and workshops, as measured by an analysis of a locally developed workshop rating scale administered at the conclusion of the workshops and by evidence of attendance sheets, agendas, and parent interviews.

PROJECT IMPLEMENTATION

During the 1993-94 school year, the main goal of Project CAPERS was to provide instructional services to underserved Russian-speaking LEP students.

Native language arts (N.L.A.) was offered in Russian; content area courses were taught at first in the native language to help students acquire material more readily. The courses relied on English more heavily as the term progressed.

Project CAPERS offered on-site preservice and inservice workshops for teachers, paraprofessionals, and guidance counselors. These focused on high school selection, resources and materials, career education, and working with small groups. The project also provided an extensive program of parental involvement activities. Workshops covered bilingual programs, career opportunities, and community resources.

Materials, Methods, and Techniques

Participating schools offered English as a second language (E.S.L.) at beginning and transitional levels and N.L.A. on the intermediate level. The content areas used both the native language and English with an E.S.L. methodology.

Teachers of participating students used whole class, small group, and individualized instruction. They used a wide array of strategies and techniques, emphasizing the natural approach. In the natural approach, teachers provide language input that learners can understand. Comprehension is facilitated by using visual aids, gestures, commands for physical actions (e.g. total physical response), sentence expansions, open-ended sentences, and prefabricated phrases to facilitate comprehension. Oral production is delayed until students feel they can speak comfortably.

Teachers emphasized mathematics computation and problem-solving strategies, using computers and calculators in the classroom. An innovative aspect of the mathematics curriculum was the active involvement of all students in a variety of projects.

Each student was seen on a bi-weekly basis by the guidance counselor to review career awareness modules.

For a list of instructional materials used in the project, please see Appendix A.

Capacity Building

Next year, the following materials and activities, currently supported by Title VII, will be at least partially paid for with tax-levy funds: college admissions and courses for staff (100 percent tax levy); guidance counselors (25 percent tax levy); evaluators (50 percent tax levy); and supplies and materials (25 percent tax levy).

Staff Qualifications

Title VII staff. Title VII completely funded the social worker and the paraprofessional. It partially funded three guidance counselors. For a description of their degrees and language proficiency (teaching or communicative*), see Table 4.

TABLE 4

Project Staff Qualifications

Position Title	Degree(s)	Language Proficiency	Other Funding Source
Social Worker	M.A.	Spanish, Yiddish (CP)	
Guidance Counselor (3)	M.A. (3)	Unknown	Tax levy (3)
Paraprofessional	B.A.	Russian	

The social worker was responsible for the involvement of parents in the activities at the three project sites, utilization of community resources, and home visits.

The three guidance counselors functioned under the supervision of the project director and the director of Pupil Personnel Services. They provided general guidance and counseling on careers and high school selection to target students.

Guidance counselors had at least three years of relevant experience and were knowledgeable in Russian culture.

*Teaching proficiency (TP) is defined as the ability to use LEP students' native language in teaching language arts or other academic subjects. Communicative proficiency (CP) is defined as a non-native speaker's basic ability to communicate and interact with students in their native language.

The paraprofessional assisted the Russian bilingual teachers in working with the students in small groups or on an individual basis. She also helped new students and those with particularly limited English skills.

Other staff. Tax-levy funds paid the salaries of the three assistant principals and the three classroom teachers who provided instructional services to project students. For degrees, certifications, and language proficiency, please see Table 5.

TABLE 5

Qualifications of Non-Title VII Staff

Position Title	Degrees	Certification	Language Proficiency
Teachers (2)	M.A.	Russian Bilingual	Russian, Spanish TP
Teacher	M.A.	Russian Bilingual	Russian TP
Assistant Principal	M.A.	Supervisory	Italian
Assistant Principal	M.A.	Supervisory	Spanish TP
Assistant Principal	M.A.	Supervisory	Unknown

Staff Development

The bilingual classroom teachers and education assistants received three days of preservice training and ten half-days of inservice training. Training emphasized the philosophy and methodology of bilingual education at the elementary and junior high school level. The project director and the district's curriculum coordinators conducted on-site training activities at the target schools. These were aimed at assisting teachers in developing successful implementation

strategies for the skills and knowledge gained in workshops. All preservice and inservice activities were designed to enable staff to meet the needs of LEP students served by the project. The staff also participated in four workshops: high school selection, resources and materials, career education, and working with small groups.

Instructional Time Spent on Particular Tasks

See Appendix B for examples of class schedules.

Length of Time Participants Received Instruction

Students had a mean of 5.2 years (s.d.=1.3) of education in a non-English-speaking school system and 1.6 years (s.d.=1.0) of education in the United States. The median time students participated in Project CAPERS was 10.0 months.

Activities to Improve Pre-Referral Evaluation Procedures for Exceptional Children

A number of students were identified as gifted and talented in science, mathematics, music, and dance. A resource room was available to such students.

Instructional Services for Students with Special Needs

A resource room was available to students with special needs.

PARENT AND COMMUNITY INVOLVEMENT ACTIVITIES

The project sponsored a wide variety of parental and community involvement activities. Parents participated in an open house on the bilingual program, and lectures on career opportunities and community resources. Prominent community members visited and spoke to students about careers. Students went on field trips into the community, and extensive efforts were made to place the participants in summer job programs.

II. EVALUATION METHODOLOGY

EVALUATION DESIGN

Project Group's Educational Progress as Compared to That of an Appropriate Non-Project Group

The Office of Educational Research (OER) used a gap reduction design to evaluate the effect of language instruction on project students' performance on standardized tests. Because of the difficulty in finding a valid comparison group, OER used instead the groups on which the tests were normed. Test scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.1. It is assumed that the norm group has a zero gain in N.C.E.s in the absence of supplementary instruction and that participating students' gains are attributable to project services.

Applicability of Conclusions to All Persons Served by Project

Data were collected from all participating students for whom there were pre- and posttest scores. (There were no pretest data on students who entered the program late; therefore, posttest data for them will serve as pretest data for the following year.) Instruments used to measure educational progress were appropriate for the students involved. The LAB and the California Achievement Test (CAT) for mathematics are used throughout New York City to assess the growth of English and mathematics skills in populations similar to those served by Project CAPERS.

INSTRUMENTS OF MEASUREMENT

OER compared pre- and posttest scores on the LAB to assess the E.S.L. objective and looked at posttest scores to assess the English proficiency objective. To assess the mathematics objective, OER compared pretest and posttest scores on the Concepts and Applications subtest of the CAT. The N.L.A. and content area objective in mathematics, science, and social studies were assessed through course grades, as specified.

All students were tested at the appropriate grade level. The language of the LAB and El Examen de Lectura en Español (ELE) was determined by the test itself, whereas the language of the Math Concepts and Applications subtest of the CAT was determined by the language in which the student received instruction in mathematics (in this case, English).

According to the publishers' test manuals, all standardized tests used to gauge project students' progress are valid and reliable. Evidence supporting both content and construct validity is available for the LAB. Content validity is confirmed by an item-objective match and includes grade-by-grade item difficulties, correlations between subtests, and the relationship between the performance of students who are native speakers of English and students who are LEP. To support reliability, the Kuder-Richardson Formula 20 (KR20) coefficients and standard errors of measurement (SEM) are reported by grade and by form for each subtest and total test. Grade reliability coefficients, based on the performance of LEP students on the English version, ranged from .88 to .96 for individual subtests and from .95 to .98 for the total test.

For the Math Concepts and Applications subtest of the CAT, content validity was determined by comparing the content descriptions and the test items with particular curriculum objectives. The KR20 was used as a measure of internal consistency. The SEM is also reported in order to indicate the range within which students' true scores are likely to fall. For the Math Concepts and Applications subtest given in second through eighth grade, the number of items ranged from 42 to 50. KR20 coefficients ranged from 0.88 to 0.91; SEM ranged from 2.55 to 3.09 raw score units.

To assess the suitability of attitudes toward school and the growth of career awareness, OER developed a Likert-type questionnaire which project personnel administered to all participating students. (See Appendix C.)

To assess the objective for staff development, OER developed a Likert-type questionnaire so that teachers might rate their mastery of principles and strategies presented in staff development. (See Appendix C.)

In order to assess the parental involvement objectives, OER developed and used parent involvement surveys in both Russian and English. (See Appendix C.)

DATA COLLECTION AND ANALYSIS

Data Collection

To gather qualitative data, an OER evaluation consultant carried out on-site and telephone interviews with the project director several times during the school year and also observed two classes on each of two visits. The project evaluator collected the data and prepared the final evaluation report in accordance with the

New York Sate E.S.E.A. Title VII Bilingual Education Final Evaluation Report format, which was adapted from a checklist developed by the staff of the Evaluation Assistance Center (EAC) East in consultation with the Office of Bilingual Education and Minority Language Affairs (OBEMLA).

Proper Administration of Instruments

Qualified personnel received training in testing procedures and administered the tests. Test administrators followed guidelines set forth in the manuals accompanying standardized tests Time limits for subtests were adhered to; directions were given exactly as presented in the manual.

Testing at Twelve-Month Intervals

Standardized tests were given at 12-month intervals, following published norming dates.

Data Analysis

Accurate scoring and transcription of results. Scoring, score conversions, and data processing were accomplished electronically by the Scan Center of the Board of Education of the City of New York. Data provided by the Scan Center were analyzed in the Bilingual, Multicultural, and Early Childhood Evaluation Unit of OER. Data collectors, processors, and analysts were unbiased and had no vested interest in the success of the project.

Use of analyses and reporting procedures appropriate for obtained data. To determine the proportion of students gaining English-language and mathematics skills, OER computed the percentage of students showing pretest/posttest gains on

the LAB and the CAT. To assess the significance of students' achievement in English and mathematics, OER computed a correlated *t*-test on the LAB, ELE, and CAT N.C.E. scores. The *t*-test determined whether the difference between the pre- and posttest scores was significantly greater than would be expected from chance variation alone.

The only possible threat to the validity of any of the above instruments might be that LAB norms were based on the performance of English proficient (EP) rather than LEP students. Since OER was examining gains, however, this threat was inconsequential—the choice of norming groups should not affect the existence of gains.

III. FINDINGS

PARTICIPANTS' EDUCATIONAL PROGRESS

Project CAPERS carried out all instructional activities specified in its original design.

Participant's Progress in English

Throughout the school year, students had ample opportunity to develop their English language skills. E.S.L. was offered at beginning and transitional levels, each for two periods, five times a week.

An OER evaluation consultant observed two English classes, one at I.S. 223 with 30 students, and one I.S. 259 with 27 students. At I.S. 223, students' work was displayed around the room and the letters of the English alphabet were displayed in the front. There was a section on the wall about the discovery of America, and one about the story of the flag and Betsy Ross. First, the teacher reviewed English vocabulary, then students read a story about a girl who came to America from Puerto Rico. The teacher questioned the class about when they came to this country, how long they had been here, how they felt, and what their first impressions were. Initially only a few students responded, but as the lesson progressed, students became more enthusiastic about participating. After the discussion, the teacher reviewed the present progressive tense, giving the students exercises to complete. No paraprofessional was present.

At I.S. 259, the classroom was sparsely decorated, with windows facing the yard, making the classroom noisy. Social studies reports and pictures of Marco Polo

and Christopher Columbus were on one small section of the wall, and on another wall was a chart with the Russian alphabet. At the start, the teacher welcomed the class back from lunch and told them to listen to a story and then answer questions on it. She had written the vocabulary on the board. The students were very attentive, but some were reluctant to answer, probably because they felt they lacked English skills. The class was teacher-directed. The teacher then worked on idioms with the class, first in English, then in Russian. In the last activity, the teacher called on students to read different parts of the story of Rip Van Winkle. The paraprofessional assisted those students who were having difficulty following the lesson.

Project CAPERS posed two objectives for the development of English-language proficiency:

By the conclusion of the project period September 1993 through June 1994,

- it is expected that 75 percent of the target students in grades six to eight at the three target schools will demonstrate increased skills in listening, speaking, reading, and writing English, as measured by a comparative analysis of performance on the Language Assessment Battery (LAB) for which the level of success will be an average gain of 4 N.C.E.s or a statistically significant gain in mean N.C.E.s at the .05 level of probability.

- it is expected that 25 percent of the target population of participating LEP students in grades six to eight at the three target schools will achieve proficiency in the English language, as measured by a comparative analysis of pretest and posttest performance on the LAB, for which the level of success will be that ten percent of the students achieve a percentile rank greater than 40 on the total LAB score.

There were complete pre- and posttest scores on the LAB for 95 students from grades six through eight. (See Table 6.) The average gain of 17.4 N.C.E.s

TABLE 6

Pretest/Posttest N.C.E. Differences on the
Language Assessment Battery (LAB), by Site

Site	Total number of project students	Number of students for whom data were available	Pretest		Posttest		Difference		*t* value
			Mean	S.D.	Mean	S.D.	Mean	S.D.	
I.S. 223	33	20	11.4	16.8	19.6	16.8	8.2	12.3	2.97*
I.S. 227	51	35	11.3	13.5	30.4	17.5	19.1	11.4	9.87*
I.S. 259	44	40	9.3	12.7	29.9	22.0	20.6	17.8	7.31*
Total	128	95	10.5	13.8	27.9	19.7	17.4	15.3	11.11*

- Overall and at each site, participating students showed significant gains on the LAB.

(s.d. = 15.3) for these students was statistically significant ($p < .05$) and 80 percent showed a gain from pretest to posttest. Of the 111 students for whom there were posttest scores, 25 students (22 percent) achieved a percentile score greater than 40.

Project CAPERS met both of its objectives for E.S.L. Last year, it was not possible for OER to evaluate the first objective, and Project CAPERS met the second.

Participants' Progress in Native Language Arts

N.L.A. was offered ten periods a week to all students in the program. At I.S. 259 the paraprofessional worked with participating students in a small group setting. Eighth graders engaged in peer tutoring sixth graders at all three sites.

The evaluation objective for N.L.A. was:

- By the conclusion of the project period, September 1993 through June 1994, it is expected that 75 percent of the target students in grades six to eight at the three target schools will demonstrate increased reading skills in Russian, as measured by a comparative analysis of pretest and posttest performance on the teacher's ratings obtained from a locally developed *Russian Reading Rating Scale* for which the level of success will be a statistically significant gain at the .05 level of probability.

Of the 107 students for whom there were data, 101 (94 percent) passed.

Project CAPERS met its N.L.A. objective as it did last year.

Participants' Academic Achievement

Students were enrolled in each content area subject five periods per week. Depending upon the subject, varying degrees of Russian and English were used for instruction. When English was used to teach the content areas, teachers employed E.S.L. methodologies. Mathematics and science were taught ten periods a week, and social studies and English five periods.

The teacher emphasized computation and problem solving strategies, using computers and calculators in the classroom. Students also worked with manipulative materials and educational games.

The OER evaluation consultant observed a mathematics class of 30 at I.S. 223 and a mathematics class of 27 at I.S. 259. At I.S. 223, the teacher was working on shapes. She showed the shapes with blocks and wrote problems, such as the area of a square, on the board. The teacher called on different students to write solutions on the board. When she began to discuss the area of a trapezoid, the students became confused. The teacher then explained the concept in Russian and had the class do more practice problems.

At I.S. 259, the lesson was on scientific notation and included the difference between standard form and scientific notation, changing scientific notation to standard form and vice versa, writing numbers as powers of ten and multiplying and dividing powers. The teacher wrote the problems on the board, and the students copied them into their notebooks with their solutions. Then the teacher had students go to the board and write the answers. If they were correct, she would say she agreed. If they were incorrect, she would say she disagreed and ask the student to explain his/her answer and show the computations. The lesson was teacher-directed and a paraprofessional helped new students or those who did not understand English well enough to follow the lesson.

The content area objective for mathematics was:

- By the conclusion of the project period September 1993 through June 1994, it is expected that 75 percent of the target students in grades six to eight at the three target schools will demonstrate increased skills in mathematics in English, as measured by a comparative analysis of pretest and posttest performance on the California Achievement Test, for which the level of success will be an average gain of 4 N.C.E.s, or a statistically significant gain in mean N.C.E.s at the .05 level of probability.

There were complete pre- and posttest scores on the CAT for only three students, all in I.S. 223. Although their average gain of 13.0 N.C.E.s (s.d.=7.2) was substantial, there was not enough data to draw any conclusions.

As had occurred last year, it was not possible for OER to evaluate the content area objective for mathematics because of a lack of data.

The content area objective for science and social studies was:

- By the conclusion of the project period September 1993 through June 1994, it is expected that 75 percent of the target students in grades six to eight at the three target schools will demonstrate achievement at the expected grade level in science, social studies, and other content areas, as measured by an analysis of final grades, for which the level of success will be that 75 percent of the students achieve final report card grades of Good, Very Good, or Excellent in each content area.

In science, of the 103 grades reported, 80 students (78 percent) received grades of Good, Very Good, or Excellent. In social studies, of the 104 grades reported, 79 students (76 percent) received grades of Good, Very Good, or Excellent.

As it did last year, Project CAPERS met its content area objective for science and social studies.

FORMER PARTICIPANTS' ACADEMIC PROGRESS IN ENGLISH LANGUAGE CLASSROOMS

Students were to be mainstreamed into the general education program when they mastered English language skills, as shown by scores above the 40th percentile on the LAB. In the year previous to the one under review, 23 students were mainstreamed. The project did not provide information on their performance in English language classrooms.

OVERALL EDUCATIONAL PROGRESS ACHIEVED THROUGH PROJECT

Mainstreaming

The project posed one objective for mainstreaming.

- By the conclusion of the project period, September 1993 to June 1994, it is expected that participating LEP students who achieve proficiency in English will be transferred to appropriate educational programs not funded by the Act within the regular education program and targeted for appropriate supplemental follow-up support services.

Sixteen students were fully mainstreamed in the year under review.

Project CAPERS met its objective for mainstreaming as it did last year.

Career Awareness

Each student was seen on a bi-weekly basis by the guidance counselor to review career awareness modules. Specific lessons on career clusters were presented and included an overview of the career guidance program, high school and career options, making choices, the need for planning, personal desires and needs, the economy, and an occupational outlook: the future of the job market, historical perspectives, and current and future careers.

The project proposed one objective for career awareness:

- By the conclusion of the project period September 1993 through June 1994, it is expected that 75 percent of the target population of students who receive instruction in the career awareness modules (computer literacy in grades six and eight, Russian language arts in grade 6, nd employability in grades seven and eight) will demonstrate increased career awareness as a result of career awareness instruction infused into the bilingual curriculum, as measured by a comparative analysis of pretest and posttest scores on locally developed module-specific criterion-referenced tests of career awareness, for which the level of success will be statistically significant change at the .05 level of probability.

Of those students who received instruction in the career awareness modules, 79 percent indicated that they had learned a lot about jobs and careers, and 72 percent said they now thought more about different careers because of Project CAPERS.

Project CAPERS met its objective for career awareness. Last year Project CAPERS did not meet this objective.

Attitude Toward School

Students, as they succeed academically and learn English, become more positive in their attitude toward school. The project director indicated that this appeared to be happening with Project CAPERS students.

The project had one objective for attitude toward school:

- By the conclusion of the project period September 1993 through June 1994, it is expected that 75 percent of the target students in grades six to eight at the target junior high school will demonstrate suitable attitudes toward school, as measured by descriptive analyses of posttest scores on each subtest of the *School Attitude Measure*, for which the level of success will be scoring in the "adequate" to "exceptional" normative ranges.

Seventy-five percent of the target students indicated that, because of Project

CAPERS, they liked school more, and 76 percent said that Project CAPERS had helped them to do better in school.

The project met its objective for attitude toward school. Last year, it was not possible to evaluate this objective.

High School Placement

Project CAPERS proposed one objective for high school placement:

- By the conclusion of the project period September 1993 through June 1994, it is expected that 50 eighth grade students participating in Project CAPERS will demonstrate that they have made informed and appropriate high school selections, as documented by evidence of counseling activities (logs, high school visitations, etc.) and the students' self-assessment of their satisfaction with their choice of high school, as measured by a locally developed self-assessment rating scale.

Eighth grade students received counseling on high school selection. Of the 41 students for whom there were data, 36 (88 percent) were satisfied with their high school choice.

The project met its objective for high school placement. Last year, it was not possible to evaluate this objective.

Grade Retention

Project CAPERS did not propose any objectives for reducing grade retention. Eighteen students (14 percent) will be retained in grade.

Attendance

The project did not propose any objectives for attendance. At every site, the attendance rate for participating students was higher than the schoolwide rate. (See Table 7.)

TABLE 7

Attendance Rates of Participating and Non-Participating Students

School	Schoolwide Attendance Rate	Participating Student Attendance Rate
I.S. 223	86.1	87.9
I.S. 227	87.4	91.8
I.S.259	90.1	93.8

Placement in Gifted and Talented Programs

No students were referred to gifted and talented programs. No objective was proposed in this area.

CASE HISTORY

I. was a newly-arrived Russian emigré who enrolled in Project CAPERS in 1992. His English skills were poor when he entered the program, but he possessed good mathematical skills. He applied himself to his English studies and has acquired competence in English.

I. worked with the project guidance counselor to research a variety of careers which capitalized on his skills and interests, which included engineering, biophysics, medicine, and the arts—dance, music, movie-making. I. is interested in applying for entrance to the Bronx High School of Science, one of the city's specialized high schools.

I.'s attendance was exemplary. He applied himself to his classwork and read

voraciously at home. I. constantly strove to improve his capabilities in English so that he could enter the mainstream of American culture and realize his aspirations.

STAFF DEVELOPMENT OUTCOMES

The project proposed one staff development objective:

- By June 1994, it is expected that 85 percent of the teaching staff will increase their mastery of bilingual methodology/teaching strategies and of career education principles and strategies as a result of their participation in monthly training workshops and on-site training activities, as evidenced by attendance sheets, agendas, training materials, and workshop evaluation/self-assessment rating forms.

During the 1993-94 school year, Project CAPERS conducted staff development workshops for teachers, guidance counselors, and paraprofessionals. These focused on high school selection, resources and materials, career education, and working with small groups. In-service workshops were offered to increase staff's mastery of bilingual methodology and teaching strategies, as well as career education principles and strategies.

All participating teachers indicated that they had increased their mastery of bilingual methodology, teaching strategies, and career education principles and strategies as a result of their participation in project activities. Last year, it had not been possible to assess the objective for staff development.

CURRICULUM DEVELOPMENT OUTCOMES

The project proposed no objectives in this area. Project staff, however, developed a career education handbook and a Russian reading test.

PARENTAL INVOLVEMENT OUTCOMES

Project CAPERS proposed one parental involvement objective:

- By June 1994, it is expected that 75 percent of the parents of participating students will have acquired basic understanding and knowledge of the principles, objectives, and activities of their children's bilingual education program and will demonstrate increased ability to participate in the education of their children, as a result of their participation in parent activities and workshops, as measured by an analysis of a locally developed workshop rating scale administered at the conclusion of the workshops and by evidence of attendance sheets, agendas, and parent interviews.

Parents had the opportunity to participate in three programs to become acquainted with what their children were doing in school. An Open House was held in October and served as an introduction to the bilingual program. One workshop dealt with career opportunities and another workshop with community resources.

The language barrier made many parents reluctant to come to the school. Another barrier parents faced was that many of them worked during the day, making it difficult to take time out to come to school.

Only seven parents completed the Likert scale. Of those, six (86 percent) indicated they had learned a great deal about their child's bilingual education program and five (71 percent) said they had gotten more involved in their child's schoolwork.

Project CAPERS failed to meet its objective for parental involvement.

Project CAPERS has formulated plans to strengthen the parental involvement program. Project staff, in the beginning of the school year, will survey parents to determine the days and times of availability. Workshops will be held at times which will accommodate parents, such as in the evening. Project staff will also prepare school

orientation material in the Russian language to familiarize parents with both the school and the CAPERS program. Project staff will develop collaborative workshops with community agencies serving Russian immigrants. These joint workshops will be more attuned to the needs and interests of the parents. In addition, plans are underway to modify the project to include an E.S.L. component for parents.

IV. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

ACHIEVEMENT OF OBJECTIVES

The project met its objectives for E.S.L., N.L.A., the content area subjects of science and social studies, career awareness, attitude toward school, high school placement, mainstreaming, and staff development. Project CAPERS did not meet its objective for parental involvement. OER could not measure the objective for the content area subject of mathematics, because the project failed to provide the required data. The project director indicated that plans have been developed to strengthen the parental involvement program.

Participating students in Project CAPERS showed academic progress. Of the 128 participating students, 110 were promoted to the next grade. The students showed gains in English and Russian language arts and the content areas as indicated by their test scores and final course grades.

Project services not only benefited the students academically but also increased their knowledge of career requirements and options. The attendance rates of participating students were higher than the schoolwide rate at the intermediate school they attended.

Teachers and other staff attended a number of staff development sessions designed to increase their knowledge of bilingual and career education.

Parents were offered activities designed to acquaint them with the bilingual program and career options.

MOST AND LEAST EFFECTIVE COMPONENTS

The counseling and career awareness components of Project CAPERS were considered, by the project director, to be highly effective component.

The least effective component of the project was the lack of parental involvement in the program, possibly because of the language barrier and/or employment responsibilities.

There will be increased efforts to involve parents in the various activities available to them and to offer those activities of greatest interest to them.

RECOMMENDATIONS TO ENHANCE PROJECT EFFECTIVENESS

- Provide additional activities for parents where information is presented in the Russian language. Arrange to hold activities at times other than during the day so that work responsibilities will not preclude attendance.
- Provide E.S.L. instruction for parents.

APPENDIX A

Instructional Materials

E.S.L.

Grade	Title	Author	Publisher	Date of Publication
*	Great American Stories	*	Prentice Hall Regents	*
*	The New Oxford Picture Dictionary English/Russian	*	Attanasio & Assoc.	*
*	Intermediate Workbook	*	Attanasio & Assoc.	*
*	Russian/English Dictionary	*	Flame Co.	*
*	Golden Age of Literature:Quartet	*	NTC Publishing Co.	*
*	Golden Age of Russian Literature:Trio	*	NTC Publishing Co.	*
*	Story Club Readers 1 and 2	*	Addison Wesley/Longman	*

Science

Grade	Title	Author	Publisher	Date of Publication
*	Connecting Science and Language, Levels 5 and 6	*	Addison Wesley	*

Career Education

Grade	Title	Author	Publisher	Date of Publication
*	The Career Box	*	Lakeshore Learning Materials	*
*	Career Sheets	*	Lakeshore Learning Materials	*

*Information was not provided.

APPENDIX B

Class Schedules

Sixth Grade

Period	Monday	Tuesday	Wednesday	Thursday	Friday
1	E.S.L.	E.S.L.	Mathematics	E.S.L.	E.S.L.
2	Mathematics	Mathematics	E.S.L.	Mathematics	Mathematics
3	Lunch	Lunch	Lunch	Lunch	Lunch
4	Gym	Gym	Gym	Science	E.S.L.
5	E.S.L.	E.S.L.	E.S.L.	Gym	Assembly
6	Social Studies	Social Studies	Social Studies	Social Studies	Science
7	Science	Foreign Language	Science	E.S.L.	Social Studies
8	Foreign Language	Science	Foreign Language	Foreign Language	Foreign Language

Seventh and Eighth Grades

Period	Monday	Tuesday	Wednesday	Thursday	Friday
1	Gym	Science	Gym	Gym	Gym
2	Science	Science	Science	Assembly	Science
3	Literature	Mathematics	Mathematics	Literature	Literature
4	Mathematics	E.S.L.	Literature	Mathematics	Social Studies
5	Lunch	Lunch	Lunch	Lunch	Lunch
6	Social Studies	Social Studies	Social Studies	E.S.L.	Mathematics
7	E.S.L.	Literature	E.S.L.	Social Studies	E.S.L.
8	E.S.L.	E.S.L.	E.S.L.	E.S.L.	E.S.L.

APPENDIX C

Likert Scales

BILINGUAL, MULTICULTURAL AND EARLY CHILDHOOD EVALUATION
OFFICE OF EDUCATIONAL RESEARCH
BOARD OF EDUCATION OF THE CITY OF NEW YORK
110 LIVINGSTON STREET, ROOM 732
BROOKLYN, NY 11201
(718) 935-3790 FAX (718) 935-5490

STUDENT ATTITUDE QUESTIONNAIRE
1993-94

Program: CAPERS 7 2 (1 2)

What grade are you in?_____ ☐ (3)

Directions:	**Please check the numbers that show how you feel.**

1. In Project CAPERS, how much did you learn about jobs and careers?

I didn't learn anything — 1 2 3 4 5 — I learned a lot ☐ (4)

SEVENTH AND EIGHTH GRADERS ONLY - PLEASE ANSWER QUESTIONS 2, 3 and 4

2. Has Project CAPERS made you think about different careers that you weren't thinking about before?

Not at all — 1 2 3 4 5 — Yes, a lot ☐ (5)

3. Because of Project CAPERS, I like school more.

I am NOT more interested — 1 2 3 4 5 — I am more interested ☐ (6)

4. Project CAPERS has helped me do better in school.

Did not help me at all — 1 2 3 4 5 — Helped me a lot ☐ (7)

EIGHTH GRADERS ONLY - PLEASE ANSWER THIS QUESTION

5. Are you satisfied with your high school choice?

N = No **Y = Yes** ☐ (8)

Thank you for completing this questionnaire.

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STAFF DEVELOPMENT QUESTIONNAIRE
1993-94

Program: **CAPERS**

7 2
1 2

Directions:	Please check the numbers that show how you feel.

1. Did you increase your mastery of bilingual methodology from the staff development workshops?

Nothing 1 2 3 4 5 A lot ☐ 3

2. Did you increase your mastery of teaching strategies from the staff development workshops?

Nothing 1 2 3 4 5 A lot ☐ 4

3. Did you increase your mastery of career education principles from the staff development workshops?

Nothing 1 2 3 4 5 A lot ☐ 5

4. Did you increase your mastery of career education strategies from the staff development workshops?

Nothing 1 2 3 4 5 A lot ☐ 6

Thank you for completing this questionnaire.

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PARENT QUESTIONNAIRE
1993-94

Program: **CAPERS**

7 2
1 2

Directions:	**Please write the numbers that show how you feel in the boxes on the right.**

As a result of the parent workshop(s):

1. How much did you learn?

   Nothing — 1 2 3 4 5 — A lot [ ] 3

2. How much did you increase your knowledge about your child's bilingual education program?

   Not at all — 1 2 3 4 5 — A great deal [ ] 4

3. Have you gotten more involved in your child's schoolwork?

   N = No Y = Yes [ ] 5

Thank you for completing this questionnaire.